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THE NEW PHARMACOPŒIA OF THE UNITED STATES.

The Pharmacopœia of the United States of America. Seventh decennial revision (1890). (Philadelphia, Pa., 1893.)

THE history of the various editions of the United States Pharmacopœia presents some points of interest. The first Pharmacopœia, published both in Latin and English, appeared in 1820, and so obviously filled a want that a second edition was supplied in 1828. The original intention was to issue a second Pharmacopœia in 1830, but in consequence of serious difference of opinion amongst the delegates to the convention, the design was nearly frustrated. The contending parties were for a time unable to reconcile their differences, and two works were produced, one in New York, and the other in Philadelphia, neither of which received official sanction. However, towards the end of the year, a second national Pharmacopœia was published in New York, and was reissued, in a slightly amended form, in Philadelphia in 1831. Ten years elapsed before any further steps were taken, but in 1842 unanimity prevailed, and the third revision appeared. The Pharmacopœia of 1851 gave such satisfaction that in 1855 it reached a second edition. In 1873 there appeared what is officially known as the fifth revision, which was followed in 1882 by a sixth Pharmacopœia. The present issue is called the seventh decennial revision of 1890, but did not come into force until January 1894.

The mode of obtaining materials for the revision of the United States Pharmacopœia differs somewhat from that employed in this country. To give it the requisite degree of popularity as a national undertaking it is considered desirable that every State should assist in its production. A number of universities, associations, and medical societies are invited to send delegates to a general meeting at Washington, which appoints certain permanent officers and a committee for the revision and publication of the work. It appears that the delegates from the more distant States do not as a rule appear in person, but they are technically represented, and any friction between the often conflicting interests of the East and West is avoided. In the case of the present revision the first meeting was held early in 1890, and the requisite materials being at hand, the work was completed with commendable dispatch. The committee were fortunate in having for their chairman Dr. Horatio C. Wood, of Philadelphia, an accomplished pharmacologist, and the author of a work on the physiological action of drugs, which is a model of lucid reasoning based on scientific research. Before adjourning, the convention made arrangements for publishing a supplement at the end of five years, and for the issue of a complete revision in 1900.

Several matters of considerable importance engaged the attention of the framers of the present edition. First and foremost was the question of establishing a fixed proportion, or possibly of fixing the limits of the active principles in the preparations, of the more active drugs capable of being accurately assayed. The matter was very fully discussed, but after carefully investigating the various processes, which from time to time had been suggested either as general methods of assay or as being applicable to special drugs, the convention came to the conclusion that reliable measures resulting in even approximately uniform results when carried out by different observers were available only in the case of a very small number of drugs. It was considered necessary that particular caution should be exercised in this matter, seeing that pharmacopœial requirements and assay processes are often made the basis of legal proceedings by public inspectors and others entrusted with the duty of enforcing the regulations relating to the adulteration of food and drugs. It was determined to apply the processes of assay to three drugs only, opium, nux vomica, and cinchona, and their preparations, leaving the extension of the system to some future date. The committee were of opinion that there was a fair prospect of being able to add materially to this list at the next revision.

It was deemed undesirable to make the tinctures of uniform strength, for it was feared that more harm would be done by so radical a change than would be compensated for by the advantage of ensuring simplicity and uniformity. It will be seen that the committee were careful not to introduce drastic remedies in matters of policy.

The adoption of the metric system in the directions for making the various preparations is distinctly a move in the right direction, whilst we note with pleasure that the term "official" has superseded the old word "officinal."

Certain minor alterations respecting the spelling, mode of printing, and interpunctuation to be followed in the use of botanical names were adopted in accordance with the suggestions of the Paris Codex of 1867. It was decided that species names should be printed with a small initial letter even if derived from geographical names. Certain exceptions were made to this rule, as when the specific name had itself at any previous time been a genus name—*Datura Stramonium*, to wit—or when the species name is derived from the name of a person, or when it is an undeclinable noun.

The changes which have been made in the body of the work call for detailed notice. In the first place we find that ninety drugs and preparations have been "dismissed," presumably on the ground that they are valueless, or are no longer extensively employed. The majority of them, it must be confessed, will not be missed. It is probable that few physicians in this country, at all events, have any knowledge of the therapeutical properties of azedarach, cydonium, or magnolia. We are surprised, however, to find extract of malt in the list of expurgated remedies. There is probably no drug more extensively employed, and from which greater benefit has been derived in all forms of wasting diseases. We are justified in concluding that it has been omitted not from any want of faith in its medicinal value, but from the difficulty which has always been experienced in accurately defining it. The arguments against introducing it into the last edition of

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the British Pharmacopœia were purely pharmaceutical, and were in no way connected with any disbelief in its therapeutical properties. The exclusion of Ignatia will be regarded with feelings of regret by many prescribers who have been accustomed to consider it of much value in the treatment of hysteria and other affections incidental to women. It undoubtedly contains active principles identical with those of nux vomica, but therapeutically the two drugs appear not to be interchangeable. Thuja, again, although comparatively little known, has many enthusiastic supporters. The evidence in favour of these drugs, it is true, is purely clinical, and rests on no firm pharmacological basis.

The list of articles added to the Pharmacopœia, some eighty-eight in number, is of importance as indicating the measure of popularity which certain drugs have obtained in the United States. The selection will meet with the approval of the great majority of therapeutists in this country. We note with pleasure that the bromide lactate and iodide of strontium have received official recognition. These salts, thanks to the researches of Paraf-Javal, can now be obtained in a state of absolute purity. The bromide especially is extensively employed, and has, to a great extent, superseded the other bromides in the treatment of epilepsy and other convulsive disorders. It rarely produces a rash on the skin, or any of the other symptoms included under the term "bromism." The lactate is said to be useful in Bright's disease and chronic albuminuria, whilst the iodide is of much value in the treatment of tertiary syphilis. Strophanthus, the pharmacological action of which was so exhaustively worked out by Prof T. R. Fraser, of Edinburgh, very properly receives admission, its value as a substitute for digitalis ensuring its ready acceptance. Convallaria, another member of the digitalis group, is not so generally used, and of late years has lost rather than gained popularity. Its admission may perhaps excite some surprise; but if there is a difference of opinion respecting the value of any particular drug, it is as well to err on the side of liberality. Rosorcin is another drug which has hardly maintained its early reputation, but it is still extensively employed in Germany, and its admission may fairly be considered justifiable. Lanoline, cocaine, menthol, naphthol, and salol have passed into the category of domestic remedies, and are so largely used that they could not be overlooked. Nitrite of sodium, the introduction of which some years ago excited much controversy, has slowly but surely established itself in public favour, and has now an assured position as a therapeutical agent. We find, with some surprise, that pepsin, the manufacture of which has been carried to an amazing pitch of perfection by American chemists, is now for the first time admitted into their Pharmacopœia. The method of estimating its activity differs materially from that recommended in the British Pharmacopœia, the standard being considerably higher, so that many of our commercial pepsins would hardly pass muster in America. Pancreatin, now so largely employed for predigesting milk and other foods, takes its place beside pepsin. The ever-popular antifebrin is introduced under the name of acetanilidum, but we look in vain for antipyrine, sulphonal, saccharin and many other remedies of undoubted value. The explanation of the absence of some recently introduced remedies may be found in the statement contained in the preface that "in accordance with the positive instructions of the convention those of the new synthetic remedies which cannot be produced otherwise than under patented processes, or which are protected by proprietary rights, are not admitted into the Pharmacopœia." Pure terebene and terpin hydrate, which clearly do not come under the ban, are admitted without question. It is clear that the framers of an official publication, such as a national Pharmacopœia, exercise a wise discretion in refusing to admit drugs the exact composition of which is unknown whilst their mode of manufacture is practically a trade secret.

In conclusion, we must offer our sincere congratulations to the committee and those who have assisted in the work on the admirable manner in which their gigantic task has been accomplished.

TWO BOOKS ON FORESTRY.

No. 2. *Tree Pruning. A Treatise on Pruning Forest and Ornamental Trees.* By A. des Cars. Translated from the seventh French edition by C. S. Sargent, Professor of Arboriculture in Harvard University, U.S.A. (London: Rider, 1893.)

No. 3. *Practical Forestry.* By Angus D. Webster, Wood Manager to the Duke of Bedford. (London: Rider.)

MESSRS. RIDER AND SON are publishing a series of technical handbooks, the first of which dealt with the economical transmission of power, and Nos. 2 and 3 have just been issued. Des Cars' treatise on pruning is in many ways an excellent little book, which has been thoroughly well translated by Prof. Sargent, and it contains sixty plates admirably illustrating the text.

The book is written in a most persuasive style, and no landowner with trees in his hedgerows, or some parcels of woodland, will read it without being tempted to set to work straightway and prune his trees. Des Cars somewhat ambitiously considers pruning as "a means of growing the greatest number of full-grown trees on a given area, and making them attain their greatest value in the shortest time without injury to the underwood beneath them."

The first fifty-six pages of the book deal with the oak, the species usually grown in Britain and in the north of France as standards over coppice; and from an incidental remark, it may also be considered applicable to the elm and ash, though no distinction is made regarding sycamore or other trees which do not recover readily from pruning.

Only three pages are given to soft-woods, poplars and conifers, and for firs and spruces Des Cars very wisely advises that pruning should be restricted to dead and dying branches, to be cut off close to the trunk, so as to prevent the knots which interfere with their growth, and eventually produce holes in boards and planks. His advice regarding pines is not quite so sound, for though it is quite true that when grown isolated they develop large branches, yet no one wanting pine timber would

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